NL020637
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCES

In re application of:		:	Examining Group: 2163
	Von Egmond	:	Examiner: Lie, Angela M.
Serial No.:	10/521,290	:	Date: November 20, 2006
Filed:	January 14, 2005	:	
For:	*Method and Device for Identifying the Type of Discharge Lamp*		

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BRIEF ON APPEAL

Hon. Commissioner for Patents
Alexandria, Virginia 22313

SIR:

Enclosed is a Brief in support of an appeal from the final rejection of claims 1-5 in the Office Action dated July 7, 2006, in the above-identified application.

Fee _____

An oral hearing is waived.

Respectfully submitted,

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BRIEF ON APPEAL

I. Real Party in Interest

The real party in interest is Koninklijke Philips Electronics N.V.

II. Related Appeals and Interferences

None.

III. Status of Claims

Claims 1–5 stand rejected.

IV. Status of Amendments

All amendments have been entered.

V. Summary of Claimed Subject Matter

The invention relates to electronic ballasts for low pressure gas discharge lamps and, in particular, to the identification of the type of lamp connected to the ballast. A lamp is identified by modulating the current (FIG. 1, I_l) through the lamp and detecting peak voltage (FIG. 1, V_l) while current increases. As illustrated in FIG. 3, the data varies slightly with modulation frequency but is sufficiently distinct from one lamp type to another for identifying lamp type from a look-up table. The look-

up table is derived from the data illustrated in graphical form in FIG. 3. Although several frequencies are shown, only one data point is necessary to identify a lamp.

The following table relates the appealed claims to the specification as originally filed (published PCT application WO 04/008815 A1). The table is not exhaustive of all possible cross-references.

1. A method of identifying the type of discharge lamp, characterized in that it comprises the steps of	page 1, line 26 – page 2, line 2;
applying an amplitude-modulated control current to a discharge lamp,	page 2, lines 25–27;
detecting the peak value of the lamp voltage at a rising edge of the envelope of the modulated control current, and	page 2, lines 28–29;
comparing the detected peak value with previously recorded peak values for different lamp types, and	page 6, lines 13–15;
assigning the detected peak value to a lamp type on the basis of said comparison.	page 6, lines 15–17;
2. A device for identifying the type of discharge lamp, said device comprising:	page 2, lines 3–9;
means for supplying a control current to a discharge lamp,	page 5, lines 4–9;
means for modulating the control current to the lamp,	page 5, lines 20ff;
peak detection means for detecting the peak voltage across the lamp at a rising edge of the envelope of the modulated control current,	page 5, lines 17–19;
recording means for recording peak voltages associated with lamp types and	page 6, lines 10–13;
means for comparing the measured peak voltage with the recorded peak voltages and supplying a lamp type-indicating signal on the basis of said comparison.	page 6, lines 13–17;

3. A device as claimed in claim 2, wherein the means for supplying a control current to the lamp are formed by a source of a comparatively high-frequency square-wave voltage supplying, via a series-resonance chain, a corresponding control current to the lamp, characterized in that	page 3, lines 12–15;
means are present for square-wave frequency modulating said comparatively high-frequency square-wave voltage.	page 5, lines 22–31;
4. A device as claimed in claim 2, wherein the means for supplying a control current to the lamp are formed by a source of a comparatively high-frequency square-wave voltage supplying, via a series-resistance chain, a corresponding control current to the lamp, characterized in that	page 3, lines 12–15;
means are present for square-wave pulse width modulating said comparatively high-frequency square-wave voltage.	page 6, lines 4–9l
5. A device as claimed in claim 2, wherein the means for supplying a control current to the lamp are formed by a source of a comparatively high-frequency square-wave voltage supplying, via a series-resonance chain, a corresponding control current to the lamp, and wherein said source of a comparatively high-frequency square-wave voltage is fed with a direct voltage from an AC/DC converter, characterized in that	page 3, lines 12–15;
means are present for square-wave amplitude-modulating the direct voltage supplied to said source of a comparatively high-frequency square-wave voltage.	page 3, lines 16–19l

VI. Grounds of Rejection for Review on Appeal

A. Are claims 1–4 anticipated by Giannopoulos et al. (6,160,361)?

B. Is claim 5 unpatentable over Giannopoulos et al. (6,160,361) in view of Alexandrov (US2004/0124785)?

VII. Argument

Claims 1–4 stand rejected as anticipated by Giannopoulos et al.

1. In support of the rejection, the Examiner asserts that the Giannopoulos et al. patent discloses "apparatus capable of" performing the claimed method. What an apparatus may be "capable of" is a matter of speculation, is not evidence, is not relevant, and is not a proper analysis.

2. Claim 1 recites "applying an amplitude-modulated control current to a discharge lamp." The Examiner asserts that "*Giannopoulos discloses ... applying an amplitude modulated control current (Figure 2, element 107; column 1, lines 54-55.*" The cited text is a sentence fragment and makes no sense. The paragraph from which the cited text was taken reads a follows.

> In accordance with a first aspect of the invention, a method for operating a ballast includes the steps of providing a sufficient starting voltage for ignition of a lamp load, adjusting the lamp load current to at least two different levels, measuring the lamp load voltage corresponding to each of the at least two different lamp load current levels, comparing the lamp load current and associated lamp load voltage for each of these at least two different levels to a plurality of lamp V-I characteristic curves, selecting the curve which best matches these at least two different levels, and operating the ballast based on the selected curve.

A. Adjusting current to two or more levels is not a disclosure of an amplitude modulated current. There is no periodicity.

B. FIG. 2 in the Giannopoulos et al. patent is a flow chart of a loop in which current is incremented through steps 0–*n* and voltage is measured at each step. This is not an amplitude modulated current. Just because current is changed, such does not constitute 'modulation" as that term is understood by those of ordinary skill in the art. After measurement, the lamp is identified. There is no return to the loop. There is no periodicity. There is no modulation. There is no anticipation.

3. Claim 1 recites "detecting the peak value of the lamp voltage at a rising edge of the envelope of the modulated control current." As clearly shown by FIG. 2 in the Giannopoulos et al. patent, voltage is measured after the current change takes place. The current varies as a stair step. The Giannopoulos et al. patent disclosed measuring current on the tread of the step. Continuing the stair metaphor

somewhat loosely, appellant claims measuring voltage on the riser, not on the tread. Therefore, there is no anticipation.

4. Claim 1 recites measuring peak voltage. At a given current step, the voltage is stable, for a normal lamp. There is no disclosure of peak. There is no anticipation.

5. The Giannopoulos et al. patent does not disclose peak detection. How can the patent anticipate when it does not disclose a recited element? The Examiner relies on column 1, lines 50–59, quoted above.

A. Note the absence of any disclosure of peak.

B. "**The** lamp load voltage corresponding to **each** of the at least two different lamp load current levels" [emphasis added] discloses a one-to-one correspondence. This is contrary to appellant's disclosure of a varying voltage. This is contrary to the measurement of a peak.

C. The Examiner asserts that there is peak detection because a "specific current" is measured "which is considered a current peak." Considered by whom, the Examiner or one of ordinary skill in the relevant art? The Examiner's interpretation is contrary to the ordinary meaning of the word "peak" as used by those of ordinary skill in the relevant art.

D. "Office personnel must always remember to use the perspective of one of ordinary skill in the art. Claims and disclosures are not to be evaluated in a vacuum" MPEP §2106. It is respectfully submitted that the Examiner's interpretation of the claims is plainly contrary to the requirements of MPEP §2106.

E. One cannot measure peak voltage "at a rising edge of the envelope of the modulated control current" when the current is not modulated but sitting at a step. In order to anticipate, the Giannopoulos et al. patent would have to disclose measuring current **during** a step change in voltage. The patent does not disclose this and there is no anticipation.

6. Claim 1 recites "detecting the peak value of the lamp voltage at a rising edge of the envelope of the modulated control current." This recites finding a single data point. In the Giannopoulos et al. patent, at least two data points must be read. There is no anticipation.

7. Claim 1 recites "comparing the detected peak value with previously recorded peak values for different lamp types." The comparison is data point to data

point. The quoted paragraph discloses comparing at least four data points with a plurality of curves. Curve fitting is not the same as comparing two numbers. The apparatus disclosed in the Giannopoulos et al. patent is incapable of performing the step recited. There is no anticipation.

Claims **2**, **3**, and **4** distinguish over the prior art for the same reasons as claim 1.

With respect to claim 3, there is no disclosure or suggestion of frequency modulation.

With respect to claim 4, there is no disclosure or suggestion of pulse width modulation.

Claim **5** stands rejected as unpatentable over Giannopoulos et al. in view of Alexandrov.

1. Claims **5** distinguishes over the prior art for the same reasons as claim 1.

2. The Alexandrov publication relates to a circuit that senses amplitude modulation of signals in the ballast caused by removing a lamp while power is applied. The publication does not disclose amplitude modulating the current to a lamp (the lamp is disconnected when the modulations take place).

3. The Alexandrov publication overcomes none of the deficiencies of the Giannopoulos et al. patent.

4. The mere mention of the words "amplitude modulation" does not constitute a teaching of the claimed invention.

5. There is no basis, other than appellant's claims, for the combination; *In re Rouffet*, 47 USPQ2d 1453, at 1457 (Fed. Cir. 1998).

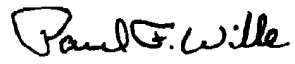
Summary

It is respectfully submitted that the claimed invention uses different data in a different manner from the prior art. The Giannopoulos et al. patent does not remotely disclose or suggest the invention.

Conclusion

In view of the foregoing, it is respectfully submitted that the rejections of claims 1–5 is in error and should be reversed.

Respectfully submitted,



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VII. Claims Appendix

1. A method of identifying the type of discharge lamp, characterized in that it comprises the steps of

applying an amplitude-modulated control current to a discharge lamp,

detecting the peak value of the lamp voltage at a rising edge of the envelope of the modulated control current, and

comparing the detected peak value with previously recorded peak values for different lamp types, and

assigning the detected peak value to a lamp type on the basis of said comparison.

2. A device for identifying the type of discharge lamp, said device comprising:

means for supplying a control current to a discharge lamp,

means for modulating the control current to the lamp,

peak detection means for detecting the peak voltage across the lamp at a rising edge of the envelope of the modulated control current,

recording means for recording peak voltages associated with lamp types and

means for comparing the measured peak voltage with the recorded peak voltages and supplying a lamp type-indicating signal on the basis of said comparison.

3. A device as claimed in claim 2, wherein the means for supplying a control current to the lamp are formed by a source of a comparatively high-frequency square-wave voltage supplying, via a series-resonance chain, a corresponding control current to the lamp, characterized in that means are present for square-wave frequency modulating said comparatively high-frequency square-wave voltage.

4. A device as claimed in claim 2, wherein the means for supplying a control current to the lamp are formed by a source of a comparatively high-frequency square-wave voltage supplying, via a series-resistance chain, a corresponding control current to the lamp, characterized in that means are present for square-

wave pulse width modulating said comparatively high-frequency square-wave voltage.

5. A device as claimed in claim 2, wherein the means for supplying a control current to the lamp are formed by a source of a comparatively high-frequency square-wave voltage supplying, via a series-resonance chain, a corresponding control current to the lamp, and wherein said source of a comparatively high-frequency square-wave voltage is fed with a direct voltage from an AC/DC converter, characterized in that means are present for square-wave amplitude-modulating the direct voltage supplied to said source of a comparatively high-frequency square-wave voltage.

IX. Evidence Appendix

There were no affidavits filed in this application.

X. Related Proceedings Appendix

There are no related proceedings.